attribute to a drainage of cool heavy air from the valleys of the hills surrounding the Punjab and the high lands of Beloochistan and Afghanistan; air cooled by the precipitation on the mountains.

If the above view be true, the stillness of the atmosphere, combined with the presence of a moderate evaporation, must be accepted as the condition which primarily determines the formation of barometric minima and the winter rains of Northern India. And this stillness is obviously due to the existence of the lofty mountain ranges which surround Northern India, leaving free access to the plains open only to the south.

Were the Himalayan chain absent and replaced by an unbroken plain, stretching up to the Gobi desert, it is probable that the winter rains of Northern India would cease; any local evaporation in the Punjab and Gangetic valley would be swept away by strong dry N. E. winds blowing from the seat of high pressure, which, in the winter months, lies in Central Asia; and instead of the mild weather and gentle breezes which now prevail at that season, on the Arabian Sea, it would be the theatre of a boisterous and even stormy monsoon, such as is its local equivalent of the China Seas. Other and even greater changes of climate, that would supervene on the suppression of the Himalayan range and the consequent alteration of the summer monsoon, its precipitation, and the course of the land drainage thereby fed, it would be beyond the province of my present subject to discuss.

II.—Descriptions of some new Asiatic Diurnal Lepidoptera; chiefly from specimens contained in the Indian Museum, Calcutta.—By Frederic Moore, F. Z. S., A. L. S. Communicated by the Natural History Secretary.

[Received May 14th,—Read June 4th, 1884.]

Family NYMPHALIDÆ.
Subfamily SATYRINÆ.
Genus YPTHIMA, Hübner.
YPTHIMA MAHRATTA, n. sp.

Male and female. Upperside brown; forewing with a subapical bipupilled occllus; between which and the outer margin is a pale brown curved fascia as in Y. newara: hindwing with a very small subanal unipupilled occllus.

Underside pale whitish-brown, very numerously covered with short delicate pale brown strigæ, which are uniformly disposed: forewing with

a brownish marginal fascia, which curves below the occllus and extends up the disc towards the costa: hindwing with a very small apical occllus, and two anal occlli of the same size.

Expanse $1\frac{1}{10}$ to $1\frac{4}{10}$ inch.

HAB. Deccan (Dr. Day). In coll. F. Moore.

Allied to Y. ariaspa, Y. rura, and to Y. norma. Nearest to Y. norma, the type specimens of which are from China. Differs from the last species, on the upperside, in having a smaller occllus on the forewing, and a single subanal occllus on the hindwing. Underside with shorter and more numerous strigæ; both the apical and the two anal occlli of hindwing are half the size of those in Y. norma.

The hindwing also has a comparatively longer costal margin, which thus gives the apex and exterior margin less convexity.

YPTHIMA APICALIS, n. sp.

Male. Upperside pale brown: forewing with a small rounded bipupilled apical occllus, above which is a distinct broad whitish streak: hindwing with two very small subanal occlli, the upper one minute, the anal and apical occllus of the underside being slightly visible from above; across the middle of the lower discal area is a faint pale slight fascia. Underside pale brownish-ochreous, with indistinct darker brown uniformly disposed strigæ: forewing with the apical occllus and white upper streak as above: hindwing with a small apical and three lower occlli, the anal one bipupilled; an indistinct pale whitish fascia is traceable across the disc above the lower occlli.

Expanse $1\frac{2}{8}$ inch.

HAB. Deyra Dhoon (Godwin-Austen). In coll. F. Moore.

YPTHIMA KASMIRA, n. sp.

Male and female. Upperside dark brown: forewing with a moderately small bipupilled apical ocellus: hindwing with two small subanal ocelli in male and, in female, a third minute anal ocellus.

Underside purpurascent brownish-white, densely covered with uniformly disposed purplish-brown strigæ: forewing with prominent apical occllus: hindwing with prominent large apical and three lower occlli, the anal one tripupilled.

Expanse δ $1\frac{2}{8}$, \Diamond $1\frac{3}{8}$ inch.

HAB. Cashmere (Capt. Hellard). In coll. F. Moore.

YPTHIMA HOWRA, n. sp.

Male and female. Upperside brown: forewing with a bipupilled apical occllus: hindwing with two small subanal occlli, some specimens

of both sexes also having a smaller anal occllus, all with a single pupil. Underside yellowish ochrey-white: forewing with the occllus as above: hindwing with a very small apical occllus and four lower occlli, the two anal being geminated and the smallest. Both wings are crossed by ochreous-brown strigæ; with the three outer transverse fasciæ on forewing, and an angulated discal fascia, as well as a sinuous marginal fascia, on the hindwing.

Expanse 3 $1\frac{2}{8}$, 9 $1\frac{3}{8}$ inch.

HAB. Calcutta. In coll. Ind. Mus., Calcutta, and F. Moore.

Nearest to Y. hübneri. Distinguishable from typical specimens (figured as Y. philomela, Hubner, Zutr. fig. 83-84), on the underside, by the yellowish ochreous-white ground-colour, and the transverse fasciæ on the hindwing, as well as by the small size of the ocelli.

YPTHIMA HORSFIELDII, n. sp.

Male. Upperside dark olive-brown; discal area dusky; subapical ocellus oval, bipupilled: hindwing with two medial and a minute anal ocellus.

Female. Upperside: forewing with a large rounded ocellus: hindwing with two larger medial, a small anal, and a medium-sized apical ocellus. Underside of male and female ochreous-white: forewing almost covered with dark vinous-brown confluent strigæ: hindwing very sparsely covered with slender brown strigæ very similarly disposed to those in the typical Javan Y. pandocus: ocellus of forewing as above: hindwing with two small apical, two larger medial, and two smaller anal ocelli.

Expanse \mathfrak{F} $1\frac{4}{10}$, \mathfrak{F} $1\frac{6}{10}$ inch. HAB. Java. In coll. F. Moore.

> Subfamily Nymphalinæ. Genus Euthalia, Hübner.

Euthalia andersonii, n. sp.

Male and female. Upperside dark umber-brown, palest in the female; both wings with a marginal bluish-grey band, which extends very narrowly from the apex of forewing and widens across the hindwing to broadly above anal angle. Within and beneath the cells the black streaks are most distinct in the female; across the discal area are two indistinct dusky sinuous fasciæ widening from the costa of forewing, at which end the interspace is slightly paler in the male and distinctly paler in the female. Cilia white.

Underside ochreous-brown in male and yellowish ochreous in female; the outer borders broadly suffused with purplish lilacine-white; cell-marks distinct; across the disc of both wings are too dusky lunular fasciæ with pale interspace, most distinct in the female, the fasciæ being disposed across the middle of the disc.

Expanse δ $2\frac{1}{4}$, 2 $2\frac{3}{4}$ inches.

HAB. Mergui; Tavoy. In coll. Ind. Mus., Calcutta, and F. Moore.
Nearest allied to E. cocytus, Fab.; also to E. lepidea, Butler, and to E. macnairii, Distant.

Genus CIRRHOCHROA, Doubleday.

CIRRHOCHROA ABNORMIS, n. sp.

Male. Upperside ferruginous-yellow: forewing with a medial discal transverse black lunular waved band, which is broadest at the costal end, a narrower submarginal sinuous band, and a nearly straight marginal line, the interspace from the submarginal band and edge of the wing being suffused with black towards the apex; an indistinct dusky streak at end of the cell: hindwing with a medial discal transverse angulated black lunular band, which is broadest at the costal end; a submarginal lunular line, and a slender nearly straight marginal line; a row of minute black discal dots. Underside brownish-ochreous; a transverse medial slightly purpurascent band, with waved suffused dusky lunular inner border and slender almost straight outer border, the band being quite narrow where it crosses from fore to hindwing and broadly dilated at the costal end on forewing and at anal end on the hindwing; contiguous to the inner border of the band is a similar dusky suffused lunular fascia, the interspace being of a slightly pale yellowish colour; at end of each cell is a dusky double lunular mark, a similar double lunular waved line also extends from midlle of the cell on forewing to below the cell on the hindwing; outer border of both wings traversed by faint traces of a yellowish submarginal lunular band; on the forewing is a conspicuous and whitish apical patch, and on the hindwing is a row of very small blackish transverse discal dots.

Expanse $2\frac{5}{8}$ inches.

HAB. Darjiling. In coll. F. Moore.

Genus Ergolis, Boisd.

ERGOLIS TAPESTRINA, n. sp.

Male and female. Comparatively smaller than E. merione; outline of forewing more irregular. Upperside paler; with similar transverse sinuous lines on both wings, the two medial lines being somewhat nearer

together, the discal cordate marks having their outline of a uniform width, and being somewhat narrower transversely, thus leaving a slightly but perceptibly wider space between the contiguous lines; the interspaces between the basal lines, the subbasal and medial lines, the discal cordiform marks, and the marginal line and outer margin, are of a more dusky colour, and thus give the wings the appearance of being marked with alternately pale and dusky transverse bands. Underside also paler than in E. merione, with more regularly alternate pale and dark transverse bands.

Expanse $1\frac{6}{8}$ to $2\frac{1}{8}$ inches.

HAB. N. W. India (Manpuri; Deyra Doon). In coll. F. Moore.

ERGOLIS INDICA, n. sp.

Differs from typical Javanese specimens of *E. ariadne* in its smaller size. Upperside of a duller colour, the markings more obscure and comparatively less sinuous. Underside with paler interspaces between the bands, the apical border of forewing and the marginal border of hindwing greyer, and comparatively broader.

Expanse $1\frac{5}{8}$ to $1\frac{6}{8}$ inch.

HAB. Madras; Nilgiris; Bombay; Calcutta. In coll. F. Moore.

Family LYCÆNIDÆ.

Genus PARAPITHECOPS, Distant.

PARAPITHECOPS GAURA, n. sp.

Male and female. Upperside brown: forewing with a large white medial longitudinally oval spot, occupying the centre of the wing from middle of the disc to near the base; a small brown dentate spot at upper end of the cell: hindwing with the apical and upper discal area broadly white and traversed by pale brown veins; a slender brown submarginal line enclosing a marginal row of brown spots. Cilia of forewing whitish posteriorly, of hindwing entirely white. Underside greyish white: forewing with a submarginal line composed of slender waved brown lunules, and a marginal line enclosing a row of small linear spots; a slender indistinct brown streak at end of the cell, and three or four dots along the costal edge: hindwing with an irregular submarginal row of brown lunules, a marginal line enclosing a row of darker spots; a black spot at upper end of submarginal line, and a subbasal row of three smaller more or less distinct black spots; a slender brown streak at end of the cell. Antennæ black, ringed with white; pale white beneath, third joint and tip of second black; legs white, banded with black.

Expanse δ_{10} , $2 l_{12}$ inch.

HAB. Calcutta. Assam. In coll. Ind. Mus., Calcutta, and F. Moore.

Genus Megisba, Moore.

MEGISBA SIKKIMA, n. sp.

Male. Differs from *M. thwaitesii*, on the upperside, in being of a darker violet-brown, and in the absence of the short oblique posterior white band on the forewing. Underside similarly marked to *M. thwaitesii*, except that on the forewing the black spot in middle of the cell is very minute, and there is a spot below the end of tho cell between the middle and lower median veins in addition to the two dots, which are here placed beneath the lower median vein, whereas in *M. thwaitesii* the two latter dots, when present, are situated between the middle and lower medians. On the hindwing the three transverse subbasal black spots are comparatively larger, the upper one with two contiguous black dots in front; the cell-spot is prolonged upward to the costal vein and also has some black dots below it, the apical black spot is of an elongated form, and the discal macular band is composed of broader quadrate spots.

Expanse $\frac{7}{8}$ inch.

HAB. Sikkim. In coll. Indian Museum, Calcutta.

PATHALIA, n. g.

Closely allied to Megisba: forewing comparatively longer, and less regularly triangular in form: hindwing somewhat narrower, and with a slender tail at end of lower median vein. Venation similar. Second joint of palpi shorter, the third joint longer and more slender.

Type, P. albidisca.

PATHALIA ALBIDISCA, n. sp.

Male and female. Upperside dark violet-brown: forewing with a broad medial conical white patch, which extends obliquely from middle of the disc to posterior margin: hindwing with a broad white band crossing from the costal edge to near middle of the abdominal margin; an indistinct marginal row of pale-bordered brown spots. Underside greyish-white: forewing with some black spots along the costal edge, a brown streak at end of the cell, a discal transverse row of short oblique slender interrupted lunules, a submarginal sinuous line enclosing a marginal row of indistinct spots: hindwing with a similar brown cell-streak, a discal zigzag series of broader lunules, a sinuous submarginal line enclosing the marginal row of spots, of which the penultimate is large and black; three equidistant subbasal black spots, a black spot on the abdominal margin above the lower subbasal, and a larger black spot at the apex; tail in both sexes black, tipped with white. Cilia edged with

white. Body above black, antennæ black annulated with white; palpi white, tip black; legs white with black bands.

Expanse $\delta_{\frac{1}{12}}$, $\mathcal{P}_{\frac{1}{12}}$ inches.

Hab. Chittagong; Kurdah, Orissa; N. W. Himalaya (Capt. Beckett). In coll. Indian Museum, Calcutta, and F. Moore.

PATHALIA MALAYA.

Lycana malaya, Horsfield, Catal. Lep Mus. E. I. C. p. 70 (1828), Q. HAB. Java. (Horsfield collection.)

Genus Logania, Distant.

LOGANIA SUBSTRIGOSA, n. sp.

Upperside dark violet-brown. Cilia white between the veins. Costal edge of forewing with a minute white dot at end of the veins. Underside purplish white, crossed by a few ochreous-brown short strigæ, and with a thicker streak across middle and end of the cell, and in a zigzag submarginal series; also a marginal series of black spots on the forewing, and a lunular streak on hindwing; a black costal spot also on the hindwing; and the outer marginal border of both wings is ochreous-brown. Body, antennæ, and legs above brown; palpi, legs, and abdomen beneath white.

Expanse $\frac{9}{10}$ inch.

HAB. Mergui. In coll. Indian Museum, Calcutta.

LOGANIA MARMORATA, n. sp.

Upperside pale purplish violet-brown: forewing with the basal half, curving obliquely from middle of the costa to posterior margin near the angle, violaceous-white: hindwing with the lower basal and discal area also violaceous-white: the traversing veins on both wings being pale violet-brown. Cilia violet-brown. Underside densely mottled with purplish violet-brown and violet-white, interspersed with black speckles, which are most prominent in a lunular marginal fascia; a white spot at end of the cells. Body, antennæ, and legs violet-brown.

Expanse $\frac{8}{10}$ inch.

HAB. Mergui. In coll. Indian Museum, Calcutta.

LOGANIA ANDERSONII, n. sp.

Female. Upperside pale violet-brown: forewing with a broad longitudinal medial lilacine-grey band of a somewhat triangular form, disposed below the cell, the exterior border of the band being scalloped: hindwing with a narrow medial discal similar-coloured band. Cilia

alternated with white. Underside purplish lilacine-white; both wings with a blackish zigzag cell streak, a transverse discal zigzag duplex line, and two narrow similar submarginal lines, a slender marginal line, and a waved interciliary line.

Expanse $1\frac{1}{10}$ inch.

HAB. Mergui. In coll. Indian Museum, Calcutta.

Genus LYCENESTHES, Moore.

LYCENESTHES ORISSICA, n. sp.

Male. Smaller than L. lycamina and L. lycambes. Upperside of a similar purpurascent blue. Underside pale purpurascent greyishbrown. Both wings with similar, but more regularly disposed, markings. On the hindwing the subbasal costal black spot is prominent, but the subbasal black spot—so conspicuous in the above species—is absent, the entire exterior margin being uniformly marked.

Expanse $\frac{9}{10}$ inch.

HAB. Orissa. In coll. Indian Museum, Calcutta, and F. Moore.

LYCENESTHES MERGUIANA, n. sp.

Male. Upperside violet-blue: hindwing with two indistinct small anal blackish spots and a larger subanal spot. Underside dull greyish-brown; forewing with a transverse antemedial pale-bordered band, a short band at end of the cell, and a broken discal band, two submarginal pale lunular lines: hindwing with a pale-bordered subbasal band, one at end of the cell, and a broken curved discal band; two submarginal pale sinuous lines enclosing a small anal and a large oval subanal black spot, both surmounted by a yellow lunule and speckled with a few metallic-blue scales.

Expanse $\frac{9}{10}$ inch.

HAB. Mergui. In coll. Indian Museum, Calcutta, and F. Moore.

A much smaller species than L. bengalensis. Distinguished from it, on the underside, in the forewing having the antemedial pale-bordered band; and in the hindwing in the more irregular and zigzag pale bands, and the large subanal spot. It is also distinct from L. lycana.

Genus Lyczna, Fabr.

LYCÆNA CHAMANICA, n. sp.

Female. Upperside lavender-blue; extreme outer margin of forewing pale dusky-brown: hindwing with pale dusky-brown costal and

marginal border, the latter traversed by an outer row of whitish lunules. Cilia dusky-brown, edged with white. Underside lilacine ochreous-grey: forewing with a large white-bordered black lunule at end of the cell, a discal transverse row of six spots, and a marginal row of white-bordered dark brown spots, the transverse interspace between the discal and marginal spots also dark brown: hindwing with three straightly disposed transverse subbasal white-bordered black spots, a lunule at end of the cell, and a curved discal interrupted row of eight spots; a marginal row of rounded dark brown spots bordered by an inner dark brown lunular line; the anal and penultimate spot is black, speckled with metallic-blue scales, and surmounted by orange-yellow.

Expanse 1 inch.

HAB. Chaman, S. Beluchistan (April). In coll. Ind. Mus., Calcutta. This species is quite distinct from L. bracteala, Butler.

LYCENA NADIRA, n. sp.

Female. Upperside dark olivaceous violet-brown: hindwing with a very faint trace of paler marginal lunules. Cilia brown, edged with white. Underside pale olivaceous-ochreous: forewing with an olivaceous white-bordered large black linear spot at end of the cell, and a recurved transverse discal row of six spots, a submarginal row of small blackish dentate spots, and a marginal row of linear spots: hindwing with three subbasal olivaceous white-bordered black spots, a lunule at end of the cell, a curved discal row of eight spots, a submarginal row of small blackish dentate spots, and a marginal row of short linear spots.

Expanse 1 inch.

HAB. Kabul. In coll. Indian Museum, Calcutta. Quite distinct from L. fugitiva, Butler.

LYCENA BILUCHA, n. sp.

Male. Upperside brilliant, glossy, opalised, lilacine cobalt-blue, the exterior margin with a very slender black border. Cilia brown, with a broad white edge. Underside pale lilacine ochreous-grey, the base of both wings slightly metallic-green: forewing with a small round white-bordered black spot in middle of the cell, a prominent streak at end of the cell, a transverse discal row of seven spots, and a marginal double row of pale brown white-bordered lunules: hindwing with a prominent white-bordered black spot in middle of the cell, one above it, a less distinct spot below it, and a narrow spot on abdominal margin, a streak at end of the cell, and a discal curved interrupted row of eight spots; a

marginal row of white-bordered narrow black spots, each surmounted by a black-lined reddish lunule.

Expanse $1_{\frac{2}{10}}$ inch.

HAB. Chaman, S. Beluchistan (April). In coll. Ind. Mus., Calcutta.

Genus Chrysophanus, Hübner.

CHRYSOPHANUS BARALACHA, n. sp.

Female. Differs from specimens of same sex of C. phleas (var. stygianus) taken in the neighbouring country of Lahoul. Upperside: forewing golden-yellow, with a blackish quadrate spot in the middle of the cell, a larger spot at its end, three oblique subapical spots, and three lower discal spots, the lowest spot being the longest and curved; from the three subapical spots some black speckles proceed to the discocellular spot; the costal edge is very narrowly bordered with brown, and the exterior margin has a narrow macular brown border of half the width of that of the above-mentioned species: hindwing golden greyish-brown, with a broad pale red outer marginal band, which is very slightly indented with black at end of the veins on its outer border, and on the inner border by a row of indistinct blackish spots surmounted by blue-grey scales, above which is a discal row of five or six smaller black spots and also a black lunule at end of the cell. Underside of similar colour to that of above species: forewing with the spots as on upperside, but palebordered, and also a spot at base of the cell, two small spots on the costa above the discal series, and three linear spots on exterior margin above the angle, these latter spots being near the margin: hindwing with less defined red-streaked marginal band, the discal and other spots also comparatively larger.

Expanse $1\frac{3}{8}$ inch.

Hab. Baralacha Pass (16060 feet), Ladak. Taken in July 1879 by Mr. L. de Nicéville. In coll. Indian Museum, Calcutta.

Genus Aphnæus, Hübner.

APHNÆUS TIGRINUS, n. sp.

Differs from typical A. vulcanus on the upperside of the forewing in the more prominent red bands, which, in the female, are conspicuously broader; there is also a slender marginal band, more or less indistinct in the male, but very distinct in the female; on the hindwing is a red marginal band extending from above the anal lobe partly up the exterior margin, this band in the female being curved and reaching the subcostal

vein. On the underside the bands are similar, but of a brighter red and with more clearly defined black borders.

Expanse 1 to $1\frac{2}{8}$ inch.

Hab. Lower Bengal, Calcutta, Maunbhoom, Orissa. In coll. F. Moore and Indian Museum, Calcutta.

APHNÆUS PEGUANUS, n. sp.

Comparatively larger than A. lohita. Upperside similarly coloured, anal area dull red, the large black lobe-spot replaced by a few interciliary black and silver scales. Underside very pale reddishochreous; the bands dark red, somewhat narrower than in A. lohita: forewing with the streak at base longitudinal, narrow, and not extending above the costal vein; the short transverse broad end crossing the cell in A. lohita is here absent, the band crossing the middle of the cell is also shorter, the oblique discal and submarginal bands quite confluent at their posterior end, the inner costal band beyond the cell is short, and the next band is the longest, both being widely separated—whereas in A. lohita the inner band is the longest and the two are joined externally in the middle, the submarginal band is narrower, and the marginal band very slender: hindwing with the subbasal band composed of three well separated portions; anal lobe red, with a small interciliary black-speckled streak; the submarginal and marginal band narrower, the latter being interrupted in crossing the veins.

Expanse $1\frac{3}{10}$ to $1\frac{4}{10}$ inch.

HAB. Magaree, Pegu. In coll. F. Moore.

APHNÆUS HIMALAYANUS, n. sp.

Allied to A. lohita. Male and female much larger than typical Javanese specimens. Upperside similarly coloured; anal area duller red. Underside pale creamy-yellow; the bands similar, but of a darker purplered, all comparatively broader, the marginal band conspicuously broader.

Expanse 3 $1\frac{3}{10}$, 9 $1\frac{4}{10}$ to $1\frac{7}{10}$ inch.

HAB. Nepal (Ramsay), Darjiling (Elliot.) In coll. F. Moore.

APHNÆUS KHURDANUS, n. sp.

Male. Upperside dark brown; base of forewing, and hindwing dark slaty-blue; anal lobe red, spots black. Underside dull pale purplish brownish-ochreous; markings very similar to those on underside of same sex of A. trifurcatus, but comparatively narrower and more regular in outline.

Expanse 1 to $1\frac{1}{10}$ inch.

HAB. Khurda, Orissa; Calcutta. In coll. Ind. Museum, Calcutta.

This species belongs to the *lohita*-group of *Aphnaus*. On the underside the markings are extremely like those in *A. trifurcatus*, but the upperside of the forewings has no red patch, as in *A. trifurcatus*. The colour of the upperside is also of a much darker tint; and the outline of the forewing is comparatively more triangular.

APHNÆUS ORISSANUS, n. sp.

Male. Forewing broader and less regularly triangular than in A. khurdanus; hindwing also less produced anally, and the exterior margin convex. Upperside dark brown; base of forewing, and hindwing, slaty-blue; anal lobe red, spots black. Underside pale ochreous-yellow; bands purple-red, similar to those in A. pequanus, with the marginal black black-streaked.

Expanse $1_{\frac{1}{19}}$ inch.

HAB. Sonakhala and Bhatpara, Orissa. In coll. Ind. Mus., Calcutta.

APHNÆUS CONCANUS, n. sp.

Male and female. Nearest to the Ceylonese A. lazularius. Upperside similar. Underside pale reddish-ochreous; the bands dark purplered, those on the forewing similar: hindwing with the subbasal band composed of three portions, the medial discal and submarginal bands disposed nearer together at their costal end, the submarginal straighter, and the three more or less confluent at their anal end.

Expanse $1\frac{2}{8}$ to $1\frac{4}{8}$ inch.

HAB. Bombay (Dr. Leith); Canara (Ward); Nilgiris (Lindsay). In coll. F. Moore,

APHNÆUS NIPALICUS, n. sp.

Male. Upperside dusky violet-brown, the lower basal and discal areas dark slaty-blue; anal lobe red, the black spots speckled with silvery-white scales. Underside dull sulphur-yellow, the bands of a slightly darker somewhat purpurascent yellow; forewing with an oblique oval black ring near base of the cell, a black-lined bar across middle of the cell from the costal edge, an oblique discal band from the costal edge, broken, but not disconnected, at lower end of the cell, a short upper discal bar, and two shorter subapical bars beyond, a submarginal band and a slender broken lunular marginal line; all but the last traversed by an extremely slight silvery line; beneath the cell is a dusky brown fascia, and a dusky streak also is at end of the submarginal band: hindwing with a small spot at base of the cell, three transverse subbasal loval black rings, a transverse medial band, broken at lower end, then bent upward to abdominal margin, and ending in a small ring-spot, and outer discal

upper band, a narrower submarginal band broken above anal angle and bent upward, all traversed by an extremely slight silvery line; anal lobespots large, black, surmounted by bright scarlet.

Female. Upperside paler dusky olive-brown: forewing with subapical darker spot bordered on each side by red; basal area below the cell slaty-grey: hindwing with the lower basal area slaty-grey; anal lobeas in male. Underside as in male.

Expanse δ $1\frac{1}{2}$, \mathfrak{P} $1\frac{3}{8}$ inch.

HAB. Nepal (Ramsay). Sikkim. In coll. British Museum, and Indian Museum, Calcutta.

Nearest allied to A. lunulifer.

APHNÆUS ZEBRINUS, n. sp.

Male. Upperside dark brown, base of wings dark brownish violetblue; anal black spot large, broadly bordered with red. Female. Upperside darker violet-brown, base of wings dark slaty violet-blue. Underside very pale ochreous, posterior border of forewing whitish. All the bands purplish-black, as in A. zoilus; forewing with the extreme costal edge black, the bands also extending from the costal edge; basal streak long and joined to the black costal border, with a cross bar from its upper end, and a band crossing the middle of the cell (both of which join the streak below the base of the cell), the oblique discal band and the transverse submarginal band are joined together at their lower end, and the two short upper discal bars are also joined together, the marginal band is broad with a very narrow interline between it and the submarginal band; hindwing with the upper basal streak slender, the subbasal band entire and continued to the angle of the discal band above the bright red anal area, black lobe-spots large, the discal and outer bands broad.

Expanse $\delta 1\frac{1}{8}$, $2 1\frac{2}{8}$ inch.

HAB. Ceylon. In coll. British Museum.

Nearest allied to the Andamanese species, A. zoilus. Distinguishable from it by its smaller size, by the bands on the forewing all starting from the extreme costal edge, by the oblique discal band and the submarginal band being broadly joined at their base, and by the marginal band being broader on both wings.

APHNÆUS LILACINUS, n. sp.

Male. Upperside brown: forewing with the basal and discal area, including the cell, pale lilacine-blue; a blackish spot at end of the cell: hindwing with the basal and medial area pale lilacine-blue; anal lobe

ochreous, with a very small silver-speckled black spot. Underside pale brownish-ochreous: forewing with two black rings in the cell, a band at end of the cell dilated beneath and extending obliquely to the submedian, a ringlet spot beyond end of the cell, an upper discal inwardly oblique double ringlet spot and a submarginal broad chain-like band, the lower ends dusky, and each traversed by a black silvery streak: hindwing with very indistinct traces of darker-coloured transverse subbasal, discal, and submarginal bands, which are traversed by silvery black streaks; anal spots minute, silver-speckled. The silvery streak traverses the middle of the markings, except on the submarginal band of both wings, where it extends along the outer border.

Expanse, $1\frac{3}{10}$ inch.

HAB. ? In coll. Indian Museum, Calcutta.

Euaspa, n. g.

Forewing short, broad, costa arched from the base, exterior margin erect, convex, posterior margin long, straight; first subcostal emitted at two-sixths and second at one-sixth before end of the cell, second bifid at two-thirds from its base, fourth and fifth from end of the cell; discocellular very slender, erect, waved; radial from its middle; cell broad, extending to half length of the wing; middle median from near end of the cell, lower at one-third before the end, submedian straight: hindwing short, very broad, exterior margin convex and slightly sinuous, with a single slender tail from end of lower median; costal and subcostal veins joined together at their base, costal much arched from the juncture; cell broad, extending to half length of the wing; first subcostal emitted at one-fifth before end of the cell; discocellular very slender, erect; radial from near its middle; two upper medians from end of the cell, lower at one-third before the end; submedian curved, internal short, recurved. Body short; palpi porrect, second joint long, extending half beyond front of the head, pilose beneath, third joint slender, one-fifth as long as the second; legs slender; antennæ thickened at the end, tip blunt.

EUASPA MILIONIA.

Myrina milionia, Hewitson, Illust. D. Lep. p. 5, pl. 3, fig. 90, 80 (1869).

HAB. Nepal. Kangra.

Genus Hypolycæna.

Felder, Wien. Ent. Monats. vi, p. 293 (1862).

Male. Wings short, broad: forewing arched at the base, posterior margin nearly as long as the costal. Upperside with a large glandular

patch of scales extending broadly across end of the cell; four subcostal branches, the first emitted at two-fifths, second at one-fourth, and third from close before end of the cell; discocellular slender, straight; radial from its middle; cell extending to more than half length of the wing; lower median emitted at nearly one-third and middle median from near end of the cell; submedian straight: hindwing short, somewhat produced hindward, anal lobe prominent; with a slender tail from end of lower median and another from the submedian; costal vein much arched at the base; first subcostal emitted at one-third before end of the cell; the cell broad and extending to half length of the wing; discocellular recurved; radial from its middle; lower median emitted at nearly one-half and middle median from near end of the cell; submedian straight; internal recurved. Palpi porrect, second joint stout, third joint very long, of nearly the same length as the second; legs slender; antennæ with a gradually thickened club.

Type, H. tmolus.

HYPOLYCÆNA TMOLUS.

Hypolycana tmolus, Felder, Wien. Ent. Monats. vi, p. 293 (1862). Hewits., Ill. D. Lep. p. 49, pl. 21, figs. 3, 6.

HAB. Philippines.

HYPOLYCÆNA SIPYLUS.

Hypolycæna sipylus, Feld., Reise Novara, Lep. ii, p. 242, pl. 30, figs. 15, 16. Hewits., Ill. D. Lep. pl. 22, figs. 13, 14.

Myrina sipylus, Feld., Sitzb. Ak. Wiss. Wien, 1860, p. 451.

HAB. Amboina.

HYPOLYCENA THARRYTAS.

Hypolycana tharrytas, Feld., Wien. Ent. Monats. vi, p. 294 (1862). Hyp. sisyphus, Hewits., l. c. pl. 22, fig. 11, 12.

HAB. Luzon.

HYPOLYCENA ERYLUS.

Polyonmatus erylus, Godt., Enc. Meth. ix, p. 633, (1823).

Amblypodia erylus, Horsf., Catal. Lep. Mus. E. I. C. p. 111 (1829).

Hypolycana erylus, Hewits., Ill. D. Lep. p. 49, pl. 21, figs. 1, 2, 4.

Hab. N. E. Bengal, Sikkim, Khasia Hills, Cherra Punji, Burmah, Malacca, Singapore.

HYPOLYCÆNA ANDAMANA.

Hypolycana andamana, Moore, P. Z. S. 1877, p. 589.

HAB. Andamans.

HYPOLYCENA THECLOIDES.

Myrina thecloides, Feld., Wien. Ent. Monats. iv, p. 395 (1860).

HAB. Malacca, Singapore.

HYPOLYCÆNA ASTYLA.

Hypolycena astyla, Feld., Wien. Ent. Monats. vi, p. 294 (1862); Reise Novara Lep. ii, p. 243, pl. 30, flgs. 17, 18,

HAB. Philippines.

DRUPADIA, n. g.

Differs from typical Hypolycæna in the more triangular form of forewing, the costa being longer and more regularly convex, the exterior margin more oblique, and the posterior margin shorter and convex towards the base: hindwing somewhat shorter, the costa being very convex in the middle, the exterior margin truncated from the middle median, the male on the upperside with a prominent glandular patch of scales between the costal and subcostal veins, and with three tails, the middle one being long the others short. Second joint of palpi much longer and the third shorter and stouter.

Type, D. ravindra (Myrina ravindra, Horsf.).

DRUPADIA BOISDUVALII, n. sp.

Myrina lisias, Boisd., Spec. Gen. Lep. Pap. pl. 22, fig. 2 3 (nec Fabr.).

Male. Upperside: forewing purplish violet-brown, with a broad oblique transverse discal almost quadrate red band: hindwing cobalt-blue, darkest and purplish-violaceous anteriorly; costal border and abdominal margin violet-brown; cilia and tails edged with white.

Female. Upperside: forewing somewhat paler brown, the red band of the same width and quadrangular form as in male: hindwing pale violet-brown, the discal area somewhat red-streaked; above the tails are four black spots surmounted by lilac scales.

Underside: forewing ochreous-red, with a brighter red pale-bordered streak at base of the cell, a band across middle of the cell, another at its end, and a similar discal band which has a slightly dusky lunulated border at the upper outer end, a submarginal slender black slightly sinuous line: hindwing white, the costal border and apex being slightly red, with the basal and subbasal spots entirely black, a duplex slender black streak at end of the cell, a similar one above it, a discal zigzag duplex line, and

a single black submarginal line; a large anal and a subanal black spot surmounted by metallic-blue scales, which also traverse the intervening subanal space.

Expanse $\delta 1_{\frac{2}{8}}$, $2 1_{\frac{3}{8}}$ inch.

HAB. Moulmein; Mergui. In coll. F. Moore and Indian Museum, Calcutta.

Drupadia lisias (Pap. lisias, Fabr.) badly figured in Donovan's Ins. of India, pl. 40, fig. 1,—is distinct from the above. Both sexes of the type of D. lisias are in the British Museum Collection.

DRUPADIA FABRICII, n. sp.

Female. Upperside: forewing violet-brown, with a slightly broader and more irregular-shaped oblique medial red band than in female of typical D. lisias, the band also having its outer border scalloped: hindwing paler brown, with grey-bordered anal marginal spots. Underside also differs from D. lisias in the apical area of forewing being suffused with a dusky tint; at the base of the cell is a small round palebordered spot, not an elongated triangular mark as in D. lisias, the short band crossing the middle of the cell is black, the streak at end of the cell is more distinct, the transverse discal band black-lined and blackish internally at upper end, the submarginal line also being broader and more prominent: hindwing with the markings less prominent than in D. lisias, the basal bar shorter, the outer costal narrow streak further from the second, the first bar between the subcostals being midway below the two outer costals, the three subbasal spots are small and widely separated, the bar at end of the cell and the spot beneath it are palecentred, the zigzag discal interrupted band is composed of duplex streaks, which are wide apart with the interspace white.

Expanse \mathcal{L}_{10} inch.

HAB. Mergui. In coll. Indian Museum, Calcutta.

CHLIARIA, n. g.

Male. Wings small: forewing triangular; costa gently arched; exterior margin oblique, posterior margin straight; four subcostal branches, first emitted at one-third before end of the cell and slightly touching the costal vein near its end; second and third branches at equal distances apart; cell extending to nearly half length of the wing; discocellular extremely slender; one radial from near its middle; the middle median from near end of the cell, lower at one-third before the end; submedian nearly straight: hindwing short; apex convex, exterior margin oblique and waved; cell short, broad; costa arched from near

the base; first subcostal from near end of the cell; discocellular extremely slender, oblique; radial from its middle; two upper medians from end of the cell, lower at nearly one-half before the end; submedian straight; internal recurved; a slender tail from end of lower median and another from the submedian. Palpi porrect, second joint stout, third joint very slender; antennæ with a short spatular club.

Type, C. othona.

CHLIARIA OTHONA.

Hypolycana othona, Hewits., Illust. D. Lep. p. 50, pl. 22, fig. 17, 18 (1865).

HAB. Darjiling. Khasia Hills.

CHLIARIA ELTOLA.

Hypolycana eltola, Hewits., Illust. D. Lep. Suppl. p. 14, pl. 5, fig. 37, 38 (1869). HAB. Andamans.

CHLIARIA KINA.

Hypolycana kina, Hewits., Illust. D. Lep. Suppl. p. 13, pl. 5, fig. 32, 34 (1869).

HAB. Sikkim. Nepal.

CHLIARIA CHANDRANA.

Hypolycana chandrana, Moore, P. Z. S. 1882, p. 249, pl. xi, fig. 2, 2a.

HAB. Lahul, N. W. Himalaya.

CHLIARIA CACHARA.

Hypolycana cachara, Moore, P. Z. S. 1883, p. 527, pl. xlix. fig. 6.

HAB. Cachar.

CHLIARIA NILGIRICA.

Hypolycana nilgirica, Moore, P. Z. S. 1883, p. 527, pl. xlix, fig. 8.

HAB. Nilgiris.

SINTHUSA, n. g.

Male. Wings small: forewing somewhat broad, costa arched at the base, apex pointed, exterior margin slightly oblique and convex, posterior margin convex near the base; subcostal vein five-branched, first branch emitted at nearly one-half, second at one-fourth, and third from near the end of the cell, third bifid near its end; cell extending to half length of

the wing; discocellular slender; radial from its middle; lower median at more than one-third and middle median from near end of the cell; submedian straight: hindwing short, broad, costa arched in the middle, exterior margin with a single slender tail from end of lower median; cell broad, triangular, extending half the wing; first subcostal at one-half before end of the cell; discocellular oblique, slender; radial from its middle; lower median at nearly one-half and middle median from near end of the cell; submedian and internal veins recurved. Palpi porrect, second joint long, third joint short, slender, pointed; antennæ with a large thick pointed club.

Type, S. nasaka.

SINTHUSA NASAKA.

Thecla nasaka, Horsfield, Catal. Lep. Mus. E. I. C. p. 91 (1829). Deudorix nasaka, Hewits., Illust. D. Lep. pl. 5, fig. 45, 46.

HAB. Java.

SINTHUSA MALIKA.

Thecla malika, Horsfield, Catal. Lep. Mus. E. I. C. p. 90 (1829). Dipsas malika, Moore, Catal. Lep. Mus. E. I. C. I. pl. 1 a., fig. 5 (1857). Myrina malika, Hewits., Illust. D. Lep. pl. 15, fig. 41—43.

HAB. Java. Sumatra.

SINTHUSA GROTEI.

Hypolycena grotei, Moore, P. Z. S. 1883, p. 527, pl. 49, fig. 5.

HAB. N. E. Bengal (Grote).

Genus Iolaus.

Hübner, Verz. bek. Schmett. p. 81 (1816-18).

Male. Forewing short, broad; costa very much arched from the base, apex acute, exterior margin very slightly oblique, posterior margin long, slightly convex in middle, the convex edge being fringed with long hairs; on the underside of the wing is a glandular patch of scales situated immediately above the submedian vein; cell broad, extending in length to half the wing; costal vein short; subcostal arched from the base, first branch emitted at one-half, second at one-fourth, and third immediately before end of the cell, third trifid at three-fourths from its base, fifth from end of the cell; discocellulars erect, upper shortest; radial from near their middle; the middle median emitted from near end of the cell, lower at one-fourth before the end; submedian straight:

hindwing short, lengthened hindward; costa very convex, apex almost angular, exterior margin very oblique and sinuous, lobate at anal angle, furnished with two short slender tails; on the upperside is a subcostal glandular patch of scales; costal and subcostal veins joined together for a short distance at their base, widely separated beyond, costal much arched from the basal juncture; cell broad, triangular; two subcostal branches, first emitted at one-third before end of the cell; discocellulars very oblique; radial from near their middle; two upper medians from end of the cell, lower at one-third before the end; median straight; internal short. Body moderate; palpi ascending, second joint long, ascending above level of the eyes, third joint half its length, slender; legs slender; antennæ slender, gradually thickened to end, tip pointed.

Type, I. helius (helius, Fabr.; Hewits., Ill. D. L. Suppl. pl. 4, f. 31.) The typical species of Iolaus are African. The characters of the genus are here given for comparison with its Asiatic allies.

COPHANTA, n. g.

Forewing broad, costa arched, exterior margin slightly convex, posterior margin nearly straight; cell broad, extending to half length of the wing, costal vein extending to half the margin; first subcostal emitted at two-fifths and second at one-fourth before end of the cell, third bifid at nearly two-thirds from the base; discocellular slender, slightly bent outward in the middle; the radial from its angle; lower median at one-third and middle median from close before end of the cell; submedian straight: hindwing broad, costa abruptly arched at the base, apex convex, exterior margin oblique and sinuous from middle median, anal angle lobed, with a slender tail from lower median and another from submedian; costal and subcostal joined together for a short distance at the base, the costal much arched from above the juncture, and extending to the apex; first subcostal emitted at one-fifth before end of the cell; discocellular outwardly oblique and bent outward at the middle; the radial from its angle; cell broad, extending to nearly half the wing; lower median at one-third and middle median from immediately before end of the cell; submedian straight; internal recurved. Body short, thick; palpi porrect, second joint long, extending half length beyond the eyes, third joint slender, slightly fusiform, nearly half length of the second; antennæ short, stout, with a gradually thickened club; legs short.

Type, C. illurgis.

COPHANTA ILLURGIS.

Iolaus illurgis, Hewitson, Illust. D. Lep. Suppl. p. 10, pl. 4, fig. 37, 38 (1869).

HAB. Darjiling.

COPHANTA MACULATA.

Iolaus maculatus, Hewits., Illust. D. Lep. p. 47, pl. 21, fig. 29, 30 (1865).

HAB. Silhet. Darjeeling.

DACALANA, n. g.

Male. Forewing comparatively more triangular than in typical Iolaus (I. helius), the exterior margin being somewhat oblique, and the posterior margin shorter; venation similar; on the upperside of the typical species, between the median and submedian veins, is a tuft of fine hairs covering a small glandular-scaled spot, and on the underside there is also a tuft of hairs on the middle of the posterior margin: hindwing comparatively broader, being less produced hindward, the apex more convex, and the glandular subcostal spot less prominent.

Type, D. vidura (Amblyp. vidura).

DACALANA VIDURA.

Amblypodia vidura, Horsf., Catal. Lep. Mus. E. I. C. p. 113, pl. 1, fig. 6, 6a. σ , (1829).

HAB. Java. Borneo.

DACALANA BURMANA, n. sp.

From typical Javan *D. vidura*, this differs in the darker blue of the upperside. The colour of the underside is also brighter and of an ochreous-brown tint, the transverse white band is somewhat broader, the submarginal black line composed of short curved portions between the veins, and the whole series forms a more curved line in crossing each wing; the black subanal and lobe-spot is slightly smaller, and the former is but very slightly surmounted with red.

Expanse δ $1\frac{1}{2}$ inch.

HAB. Moulmein. In coll. British Museum.

DACALANA COTYS.

Iolaus cotys, Hewitson, Illust. D. Lep. p. 43, pl. 19, fig. 19, 20 (1865).

HAB. Nepal. Darjiling.

Genus PRATAPA, Moore.

Ркатара внотеа, n. sp.

Female. Upperside purpurascent greyish-blue: forewing with the anterior margin from the costal vein, the apex broadly, and the exterior margin violet-brown; cilia grey: hindwing with a marginal row of narrow violet-black spots ending in a red anal lobe-spot; a slender black marginal line; cilia greyish-white; the two tails black with white cilia.

Underside glossy purpurascent greyish-white: forewing with an indistinct darker bluish-grey streak at end of the cell, and two slender lunular fasciæ along exterior margin; a transverse discal slender prominent black broken sinuous line: hindwing with a similar cell streak and outer marginal fasciæ, the latter darkest at anal end; a jet black anal lobe-spot, on which are a few scarlet scales and some turquoise-blue scales along its inner border; a transverse discal zigzag slender black broken line ending upward above the anal lobe.

Expanse $1\frac{1}{2}$ inch.

HAB. Sikkim. In coll. Indian Museum, Calcutta.

REMELANA, n. g.

Male. Forewing less triangular than in *Tajuria* (*T. longinus*, Fabr.), the costal margin more abruptly arched at the base, exterior margin slightly convex, posterior angle rounded: hindwing broader and less produced hindward; costa less arched at the base, very convex externally, with a slender tail from end of lower median and another from the submedian, abdominal margin short. Palpi shorter, second joint stouter, and third joint longer; antennæ shorter, tip shorter and more regularly clayate. Venation similar.

Type, R. jangala.

REMELANA JANGALA.

Amblypodia jangala, Horsfield, Catal. Lep. Mus. E. I. C. p. 113 (1829), $\, Q \,$; Moore, ibid. p. 40, pl. l a, f. 11, $\, \mathcal{S} \,$.

HAB. Java. N. E. Bengal.

REMELANA TRAVANA.

Myrina travana, Hewitson, Illust. D. Lep. p. 38, pl. 17, f. 59-60 (1865) 3.

HAB. Sumatra. Singapore. Borneo.

APPORASA, n. g.

From *Thaduka* this differs in the forewing having the exterior margin biangulated and produced outward below the apex. In the hindwing the costa is longer, arched at the base, and produced to an upward angle at the apex; the exterior margin is deeply scalloped; it also has three shorter tails. Palpi long, porrect, second joint extending two-thirds beyond the eyes, third joint also long and slender, being half the length of second; antennæ stouter and blunt at tip.

APPORASA ATKINSONI.

Amblypodia atkinsoni, Hewits., Catal. Lyc, Brit. Mus. p. 3. pl. 8, fig. 92, 93 (1862).

HAB. Moulmein.

SATADRA, n. g.

Forewing comparatively longer and narrower than in typical Panchala, the costa abruptly arched at the base, exterior margin oblique: hindwing slightly but regularly arched along the costa, apex very convex, exterior margin oblique, with a slender tail at end of lower median vein and a point at end of both the middle median and submedian. Venation similar to that of Panchala.

Type, S. atrax.

SATADRA ALEA.

Amblypodia alea, Hewits., Catal. Lyc. B. M. p. 12, pl. 7, fig. 79, 81 (1862).

HAB. India.

SATADRA SELTA.

Amblypodia selta, Hewits., Ill. D. Lep. p. 14. pl. 3a, f. 36, 37 (1869).

HAB. Moulmein.

SATADRA AGABA.

Amblypodia agaba, Hewits., Catal. Lyc. B. M. p. 8, pl. 4, f. 39, 40 (1862).

HAB. India.

In the Hewitson Cabinet this species is placed under S. alea.

SATADRA BUPOLA.

Amblypodia bupola, Hewits., Ill. D. Lep. ii. Suppl. p. 21, pl. 8, fig. 44, 45 (1878).

HAB. Nepal. Darjiling.

SATADRA BAZALUS.

 $Amblypodia\ bazalus,\ Hewits.,\ Catal.\ Lyc.\ B.\ M.\ pl.\ 4,\ fig.\ 37,\ 38\ (1862)\ {\mathcal S}$.

HAB. Nepal.

SATADRA ATRAX.

Amblypodia atrax, Hewits., Catal. Lyc. B. M. p. 13, pl. 7, fig. 80, 82 (1862).

HAB. Nepal.

SATADRA ANTHELUS.

Amblypodia anthelus, Doubleday and Hewits., Gen. D. L. pl. 74, f. 6 (1852). Hewits., Catal. Lyc. B. M. pl. 3, f. 23. 24.

HAB. Moulmein.

SATADRA CANARAICA, n. sp.

Allied to S. alea (Amblypodia alea, Hewits). Male and female. Upperside of a more purplish violet-blue than in S. alea, the marginal black border comparatively narrower in the male. Underside of a darker purplish violet-brown: forewing with the basal spots darker, the two cell-spots very small and round, the discocellular spot and the two below the cell narrower, the transverse discal band regular and not broken on the upper median vein, the submarginal and marginal lunules obsolescent: hindwing with the basal and subbasal spots darker and very small, the discal zigzag band narrower and less distinct, the submarginal and marginal lunules obsolescent; anal angle less speckled with metallic-green scales, the anal black spot only present.

Expanse $3 \frac{13}{8}$, $2 \frac{16}{8}$ inch.

HAB. Canara, S. India (Ward). In coll. F. Moore.

In S. alea the underside is uniformly purplish-brown, the markings all of a regular colour and distinctly lined with pale purplish-white.

Satadra chola, n. sp.

Closely allied to S. areste (Amblypodia areste, Hewits.). Male. Upperside of a comparatively darker purplish blue, the marginal black borders being one half less the width. Female. Upperside also with the blue area extending comparatively more over the disc. Underside: forewing more dusky olive-brown in colour, with much narrower whitish cell-streak, quadrate spot beneath it, and transverse discal band, the outer band being more defined: hindwing with similarly disposed markings except that the subbasal band is very broad and entire (not

macular as in S. areste), and the markings are all of a dark somewhat aenescent-brown, with pale pinkish-white borders and the interspaces pale pinkish violet colour (not grey as in S. areste); at the analangle is a marginal black spot and another between the middle and lower median veins, both spots and the intervening marginal space speckled with metallic-green scales.

Expanse & $2 l_{\frac{6}{10}}$ inch.

HAB. Sikkim. In coll. Indian Museum, Calcutta, and F. Moore.

SATADRA LAZULA, n. sp.

Male. Upperside of both wings entirely ultramarine-blue; the extreme costal edge of forewing, the costal and abdominal borders of hindwing, and the cilia being black.

Female. Dark violet-brown, the forewing with ultramarine-blue within the cell and obliquely below on the disc, and narrowly on middle of the hindwing from base of the cell. Underside dark purple-brown: forewing with similarly disposed but broader markings than those in S. chola, the two outer bands purplish-violet: hindwing dark purple-brown, with similar markings to those in S. chola, the discal bands continuous, the interspaces brighter pink, the anal marginal spots small and more numerously green-speckled.

Expanse $1\frac{8}{10}$ inch.

HAB. Sikkim. In coll. Indian Museum, Calcutta, and F. Moore.

SATADRA PATUNA, n. sp.

Female. Smaller than S. lazula. Upperside dark violet-brown, the basal and discal areas purplish-blue, paler than in S. lazula, but disposed as in female of that species. Underside purplish-brown: forewing with similarly disposed cell, streak, discal band, and lower quadrate patches, but of a pale ochreous colour: hindwing with the basal area broadly and entirely dark bright purple-brown (more like that of typical S. apidanus), which merges into a transverse broad pale purplish-ochreous inner discal fascia, and again into a dark purplish-brown outer discal fascia, the outer border of the wing being broadly pale purplish-brown; across the disc are traced two series of indistinct brown-lined marks, which are similarly disposed to, but are less continuous than, those in S. lazula; an indistinct brown marginal lunular line, but no metallic speckles at anal angle.

Expanse $1\frac{1}{2}$ inch.

HAB. Nepal (General Ramsay). In coll. F. Moore.

SATADRA CÆCA.

Amblypodia caca, Hewits., Ill. D. Lep. p. 14, pl. 4, fig. 28 (1863).

HAB. Borneo (Sarawak).

SATADRA ARESTE.

Amblypodia areste, Hewits. Catal. Lyc. B. M. pl. 5. f. 43, 44 (1862).

HAB. Darjiling.

SATADRA FULGIDA.

Amblypodia fulgida, Hewits., Ill. D. Lep. p. 11, pl. 5, fig. 31 (1863).

HAB. [? Philippines]. N. India.

SATADRA CHINENSIS.

Arhopala chinensis, Feld., Reise Novara Lep. ii, p. 231, pl. 29, f. 10 (1865).

HAB. China.

SATADRA DIARDI.

Amblypodia diardi, Hewits., Catal. Lyc. B. M. p. 9, pl. 5, f. 41, 42, (1862).

HAB. Penang. Singapore.

SATADRA APIDANUS.

Papilio apidanus, Cram., Pap. Exot. ii. pl. 137. f. F. G. (1779).

Amblypodia apidanus, Horsf., Catal. Lep. Mus. E. I. C. p. 100 (1829).

HAB. Java. Sumatra. Borneo.

SATADRA ABSENS.

Amblypodia absens, Hewits., Catal. Lyc. B. M. p. 9, pl. 5, f. 51, 52 (1862).

HAB. Darjiling.

SATADRA ZETA.

Amblypodia zeta, Moore, P. Z. S. 1877, p. 590, pl. 58, f. 6.

HAB. Andamans.

Acesina, n. g.

Forewing with the costa less arched than in *Panchala*, apex less pointed, exterior margin more oblique, and waved; fourth subcostal vein emitted further from end of the third: hindwing not so broad or quadrate in shape, the costa but slightly arched from the base, exterior margin more oblique and regularly convex, with a slender tail one-fourth of an an inch long from end of lower median vein; abdominal margin shorter. Antennal club somewhat shorter.

Type, A. paraganesa.

ACESINA PARAGANESA.

Amblypodia paraganesa, De Nicéville, Journ. Asiat. Soc. Bengal, 1882, p. 63. Panchala paraganesa, Moore, P. Z. S. 1883, p. 530. Amblypodia ganesa, Hewits., Catal. Lyc. B. M. pl. 7, f. 72 (1862).

HAB. Nepal.

DARASANA, n. g.

Forewing short, broad, triangular; apex acute, exterior margin very slightly oblique, posterior angle somewhat rounded: hindwing short, broad; costa arched towards the base, exterior margin very convex; no tail. Antennæ slender.

Type, D. perimuta.

DARASANA PERIMUTA.

Amblypodia perimuta, Moore, Catal. Lep. Mus. E. I. C. 1, p. 42 (1857). Hewits. Catal. Lyc. B. M. p. 12, pl. 6, fig. 65, 66.

HAB. Khasia Hills. Magaree, Pegu.

DARASANA NEWARA, n. sp.

Upperside violet-brown: forewing with the basal and discal area purplish violet-blue, which extends also above the cell to near the costal edge, the outer brown border being about one-tenth of an inch in width: hindwing with the basal area purplish violet-blue, the outer border being two-tenths of an inch in width. Underside pale-brown; with faint traces of pale-bordered marks within and beneath the cell, at its end, and a more distinct narrow macular discal and submarginal lunular band: hindwing with four indistinct pale-bordered darker brown basal spots, a similar subbasal series, a discal broken band, and marginal double lunular band.

Expanse $1_{\frac{2}{10}}$ inch.

HAB. Nepal (Genl. Ramsay). In Coll. F. Moore.

Genus NARATHURA, Moore.

NARATHURA ROONA, n. sp.

Closely allied to, but smaller than N. aroa (Amblypodia aroa, Hewitson, Ill. D. Lep. p. 13, pl. 2, f. 12), from Sumatra. Female. Upperside dark violet-brown, costal edge and cilia paler: forewing with the basal and discal area, and the hindwing with the basal and medial discal area, violet-blue. Underside of a similar tint of brown to that in N. aroa, markings also similarly disposed, but with darker centres; on the forewing

the cell-spots are smaller and oval in shape, and the discal band broader; on the hindwing the basal spots are more rounded, the discal band more conspicuous and less zigzag in shape, and the submarginal and marginal lunular line more distinctly formed; at the anal angle is a black spot and another between the median veins, the spots and intervening space being speckled with metallic-green scales.

Expanse $1\frac{3}{10}$ inch.

Hab. Andaman Isles. In coll. Indian Museum, Calcutta, and British Museum (Hewitson Cabinet).

Genus Amblypodia, Horsfield.

Amblypodia andersonii, n. sp.

Male. Smaller than A. taooana. Upperside of a similar tint of ultramarine-blue; both wings with a much narrower black marginal border. Underside much darker-coloured, but similarly marked.

Expanse $1\frac{6}{8}$ inch.

HAB. Sampu, Mergui (Dr. Anderson). In coll. Ind. Mus., Calcutta.

Family PAPILIONIDÆ.

Subfamily PIERINÆ.

Genus CATOPHAGA, Hübner.

CATOPHAGA WARDII, n. sp.

Allied to the South Indian and Ceylonese C. neombo. Male and female of much larger size.

Male. Upperside olivaceous-white: forewing with a broad black apical band extending from middle of the costa to near the posterior angle, the band traversed by a curved subapical row of five small white spots, the inner border of the band excavated below the costa to below the second upper spot, then bulged inward to the disc in front of the two lower spots, concave below the middle median to lower median, below which the end of the band is imperfect and terminates on the submedian; base of wing broadly grey and sparsely speckled with minute black scales on base of the costa: hindwing with a marginal series of broad black confluent dentate spots, which decrease in width from the costa. Underside: forewing olivaceous-white, apex pale yellow, with a curved black subapical band similar to the inner portion on the upperside: hindwing pale yellow throughout.

Female. Upperside of a darker tint of olivaceous-white than in male: forewing with a broader black apical band, which is traversed by

three subapical white spots, the inner border of the band being less excavated below the costa, the excavated space being shorter and angular on the middle median, more deeply concave beneath it, and the end entirely black to the submedian vein: hindwing with a broader continuous black band, the inner border of which is acutely dentated. Underside: forewing with the basal area tinged with yellow, the discal area olivaceous-white, and the apex glossy olivaceous-white; a broad curved subapical black band corresponding to the inner portion on the upperside: hindwing entirely pale glossy olivaceous-white.

Expanse δ , $2\frac{5}{8}$ inches.

HAB. Coonoor, Nilgiris, S. India (Ward and Lindsay). In coll. Indian Museum, Calcutta, and F. Moore.

CATOPHAGA ROEPSTORFFII, n. sp.

Male. Upperside white: forewing slightly grey and sparsely black-scaled along base of costal border; a black-speckled spot between upper and middle median veins. Hindwing immaculate. Underside: forewing white, apex very pale yellow; the black-speckled spot as above: hindwing very pale yellow.

Expanse $2\frac{3}{8}$ inches.

HAB. Nicobar Isles. In coll. Indian Museum, Calcutta.

Near to C. paulina. Male. Differs from the same sex of that species in the entire absence of the blackish apical margin on the forewing, and in the presence of the discal spot.

Genus Ixias, Hübner.

IXIAS GANDUCA, n. sp.

Male and female. Upperside deep sulphur-yellow: male: forewing with the apex brownish black traversed by a moderately broad orangered subapical band, the inner border of the band being very slightly edged with black: hindwing with a very slender black-speckled marginal band.

Female: forewing with a narrower and more irregular-bordered subapical band, which is slightly tinged with orange-yellow, the inner border of the band is broadly black across end of the cell, and from the upper median to the indentation of the lower portion of the band the border consists of a very slender black-speckled line, the lower portion of the band is indented with black, the next upper interspace has a medial black spot, and the third upper interspace is broken by a large black spot: hindwing with a broader dentate-bordered black marginal band. Underside of both sexes ochreous-yellow, palest on base of the forewing; both wings with sparsely disposed slender brown strigæ: forewing with a blackish spot at end of the cell, a transverse discal row of purple-brown-speckled spots with white centres: hindwing with a similar white-centred purple-brown-speckled costal spot and row of discal spots, the second and third upper spots being the largest: a brown dot also at end of the cell.

Expanse δ 2, $2 \frac{1}{8}$ inches.

HAB. Calcutta (February). In coll. Indian Museum, Calcutta.

Nearest to, but distinct from, *I. moulmeinensis*. The male differs from it above in the comparatively narrower orange-red band and its less black inner border. The female also is quite different from the same sex of that species.

Genus Idmais, Boisd.

IDMAIS SURYA, n. sp.

Nearest to *I. oriens*. Male larger, upperside much brighter-coloured, the black apical band broader, and is traversed by three spots only, which are comparatively shorter; the marginal spots are more prominent, the black inner border terminating on the upper median as in *I. oriens*; below the three subapical spots are two black spots. Cell-spot on forewing three times the size of that in *I. oriens* on both the upper and underside: hindwing with six marginal black spots, larger than in *I. oriens*. Underside much brighter-coloured than in *I. oriens*; base of both wings deep yellow, the outer borders broadly suffused with orangered, the discal macular band similar but much less prominent on the hindwing.

Expanse $1\frac{6}{8}$ inch.

HAB. Sonakhala, Orissa. In coll. Indian Museum, Calcutta.

Genus Mancipium, Hübner.

Mancipium naganum, n. sp.

Male. Upperside pale yellowish-white; forewing with the base of the costal border sparsely black-speckled; a black band at the apex, the inner border of the band being curved, slightly irregular, and terminating at the middle median vein; a small black discal spot between the upper and middle medians, and a slight black-speckled spot at lower end of the cell. Underside: forewing white, with the apex pale yellow, the discal and discocellular spot as on upperside: hindwing yellow.

Expanse 2 inches.

HAB. Naga Hills, Assam. In coll. Indian Museum, Calcutta.

Genus Appias, Hübner.

Appias amboïdes, n. sp.

Male. Upperside white: forewing with a narrow apical black band. Underside: forewing white, the costal border, and apex corresponding to the band on upperside, pale brownish-ochreous: hindwing entirely pale brownish-ochreous, with a slight indistinct dusky fascia extending from the base along the subcostal and median vein.

Expanse $1\frac{7}{8}$ inch.

HAB. Silhet. Dihung, Assam. In coll. Indian Museum, Calcutta, and F. Moore.

Genus Hiposcritia, Hübner.

HIPOSCRITIA IMBECILIS, n. sp.

Male. Upperside white: forewing with a black-speckled apical band, which is traversed by four subapical white spots. Underside: forewing white, with the apex ochreous-white and slightly speckled with ochreous-brown scales: hindwing ochreous-white, sparsely speckled with ochreous-brown scales with slight traces of their clustering on the anterior margin near end of the costal and subcostal veins and across the disc in an indistinct zigzag fascia; a small blackish spot at end of the cell.

Expanse $1\frac{3}{4}$ to 2 inches.

HAB. Silhet; Assam. In coll. Indian Museum, Calcutta, and F. Moore.

Allied both to *H. indra* and to *H. mahana*. Distinguished from the latter by its smaller size. Forewing with paler and less defined blackish apical band. No subapical curved black fascia on the underside.

Subfamily Papilioninæ.

Genus Papilio, Linn.

Papilio ladakensis, n. sp.

Male. Distinguished from the N. W. Himalayan P. asiaticus by the absence of the elongated tail on the hindwing, which in this form is reduced to a short point but little more acute than the anal angle. The forewing is comparatively narrower, and the hindwing is less convex and with less acutely sinuous exterior margin. On the upperside the yellow is also of a paler tint: forewing numerously covered with yellow scales between all the markings, the cell bands are shorter transversely and broader, and the inner cell-band is regularly quadrate; the discal bands

also comparatively narrower and with more slender intervening black veins; the marginal row of spots is broader, and the intervening transverse discal area is narrower: hindwing with the outer border of the yellow basal area excavated between the veins, the marginal spots shorter and somewhat broader, the anal lobe-spot also smaller and broader.

Expanse $3\frac{1}{4}$ inches.

HAB. Tarhsam, Ladak. In coll. Indian Museum, Calcutta.

Papilio sikkimensis, n. sp.

Differs from N. W. Himalayan and Nepalese specimens of *P. asiaticus* in the very much darker black colour of the upperside; and in the forewing having the yellow cell-bands quadrate in form, the discal band composed of smaller and shorter portions, and the area intervening between the band and the marginal spots broader. On the hindwing, the veins are broadly black-lined, the abdominal border also black and leaving but a small subanal lunule; the discal margin of the yellow area has a more regularly scalloped edge, and there is also a broader discal area intervening between it and the marginal spots; the crimson anal lobe-spot is smaller, narrower, and has a lower retort-like black spot.

Expanse $2\frac{6}{8}$ to $3\frac{3}{8}$ inches.

HAB. Sikkim (Elwes).

Family HESPERIIDÆ.

CUPITHA, n. g.

Male. Forewing elongated, triangular, costa arched at the base, exterior margin oblique, posterior margin convex towards the base; first subcostal emitted at nearly one-half before end of the cell, the branches at equal distance apart; cell extending to nearly two-thirds length of the wing; discocellular almost erect, slightly bent close to upper end and below the middle; upper radial from the angle near subcostal, lower radial from the angle below the middle; the middle median at one-sixth, and lower median at four-sixths before end of the cell, submedian undulated; on the underside of the forewing is a short, broad, nacreous patch on the middle of posterior margin, across which the submedian is lined with rough scales, and from near the base of the margin projects a broad pencil of long rigid hairs: hindwing short, costa very much arched from the base, apex rounded; costal vein extending to near apex, forked at its base; subcostal bent upward and slightly joined to costal close to the base, subcostal two-branched, first branch from close to end of the cell; discocellular very slender, slightly oblique and concave; cell extending to nearly half the wing, of equal width throughout; middle median from near end of the cell, lower at more than one-half before the end, the portion from the middle median to lower median distorted and extending beneath a drum-like glandular sac, which extends upward in a circular form within the cell from base of lower median, the sac, or drum, as seen from the upperside, is flat, with a well-defined circular rim, and on the underside, it stands out from the surface in a corrugated circular form; no radial present; submedian straight; internal vein curved.

Thorax stout; antennæ with a slender club.

Type, O. tympanifera.

CUPITHA PURREEA.

Pamphila Purreea, Moore, P. Z. S. 1877, p. 564, pl. 58, fig. 10, $\mathfrak P$. Wood-Mason, Journ. Asiat. Soc. Bengal, 1881, p. 261.

HAB. South Andaman.

CUPITHA TYMPANIFERA, n. sp.

Male. Upperside dark violet-brown; forewing with a broad gamboge-yellow basal costal band, and an oblique discal sinuous-bordered band extending upward from near base of the posterior margin to near the apex: hindwing with a broad transverse discal yellow band extending from near the abdominal margin to near the apex and thence upward along the costal border. Cilia yellow. Body brown; abdomen with yellow bands. Underside deep gamboge-yellow: forewing with a short ochreous-brown streak extending longitudinally from the base to end of the cell, and a broad patch at the posterior angle: hindwing with a similarly coloured speckled patch near anal angle ascending upward from end of submedian vein. Palpi and legs yellow, antennæ annulated with yellow.

Expanse δ $1\frac{2}{8}$.

HAB. Magaree, Pegu. In coll. F. Moore.

This is a comparatively larger insect than *C. purreea*; the bands on the forewing are broader and with more irregular borders, the bands on the hindwing are also broader.

Genus Plesioneura, Felder.

PLESIONEURA MUNDA, n. sp.

Male and female. Upperside olive-brown: forewing with an oblique transverse discal semidiaphanous white band, similar to, but more compact than that in *P. leucocera*, the apex-spot starting from above the costal vein, the two lower large spots, the small one beneath, as well as that outwardly between them, are not separated from each other, the

second lower spot between the median and submedian only being apart from the rest; three subapical conjoined white spots and two minute lower dots; cilia very faintly alternated brownish-white: hindwing uniformly olive-brown: cilia deeply alternated with white. Underside paler than above: forewing marked the same: hindwing numerously speckled with olive-green scales towards abdominal margin; an olive-green-speckled lunule at end of the cell.

Expanse $1\frac{5}{8}$ inch.

HAB. Simla (Lang). In coll. F. Moore.

Genus Suastus, Moore.

SUASTUS ADITUS, n. sp.

Male. Upperside dark violet-brown: forewing with two small quadrate yellow spots at end of the cell, a larger spot immediately beneath end of the cell between the middle and lower medians, and a small spot between the base of upper and middle medians; between the lower median and submedian is a very slight trace of an opaque yellowish streak; cilia edged with grey. Underside paler brown: forewing with the spots as above, and a whitish discal patch below them: hindwing speckled with olive-grey scales, which are most thickly disposed along the abdominal border and form a distinct line along the submedian vein; two dark brown discal spots, one being situated between the middle and lower medians, the other between the latter and submedian. Body, palpi, and legs beneath olivaceous-grey.

Expanse $1_{\frac{2}{10}}$ inch.

HAB. Andaman Isles. In coll. Indian Museum, Calcutta.

Allied to S. sala (Hesperia sala, Hewits.).

Suastus möllerii, n. sp.

Male. Upperside very dark olive-brown: forewing with three small narrow white semidiaphanous subapical spots, a larger narrow spot at lower end of the cell, a still larger spot below end of the cell, and a small very slender spot between base of upper and middle medians; a small yellowish opaque spot also above middle of the submedian: hindwing with the abdominal border broadly paler olive-brown. Cilia cinereous-white. Underside: forewing dusky-black, the costal border and apical area pale olive-brown; spotted as above: hindwing very pale olive-brown, with the interspace between submedian and internal veins white. Palpi beneath, and legs, and abdomen beneath, white.

Expanse $1\frac{1}{2}$ inch.

HAB. Sikkim (Otto Möller). In coll. Indian Museum, Calcutta.

Genus SATARUPA, Moore.

SATARUPA PHISARA n. sp.

Male. Upperside dark vinous-brown: forewing with two, sometimes three or four, minute semidiaphanous yellowish white subapical spots, a small spot at lower end of the cell, a large quadrate spot below end of the cell, and a small spot also between the base of upper and middle medians; a very indistinct greyish-brown-speckled submarginal lunular fascia and a similar short fascia below the quadrate discal spot: hindwing with a transverse subbasal pale yellowish band, and a curved submarginal indistinct greyish-brown-speckled lunular fascia, which gives the discal area a macular appearance. Female: forewing marked as in male, the short fascia below the discal spot more distinct: hindwing with the transverse band somewhat broader, the discal area between it and the submarginal lunular fascia more distinctly macular, being traversed by pale veins. Underside as above, the markings more prominent. Abdomen with slender white narrow bands; front of head and base of palpi, and pectus, orange-yellow, tip of palpi black.

Expanse $\sigma 1_{\frac{5}{10}}$, $9 1_{\frac{6}{10}}$ inch.

HAB. Khasia Hills. In coll. Indian' Museum, Calcutta, and F. Moore.

Allied to S. bhagava and to S. sambara.

SATARUPA NARADA, n. sp.

Upperside purpurascent violet-brown: forewing with three small upper and two lower subapical semidiaphanous white spots, a small erect oval spot at lower end of the cell, a slightly larger quadrate spot on the disc between upper and middle medians, and a broad band formed of three quadrate spots increasing in width from end of cell to posterior margin: hindwing with a broad white transverse medial band, the outer border with an ill-defined upper spot. Cilia edged with white. Underside marked as above; the hindwing with the band showing a more defined macular outer border and a well separated upper spot. Expanse $1\frac{4}{10}$ inch.

HAB. Darjiling, Sikkim. In coll. Indian Museum, Calcutta, and F. Moore.

Nearest allied to S. bhagava, but quite distinct.

Genus TAGIADES, Hübner.

TAGIADES KHASIANA, n. sp.

Male. Nearest to T. ravi. Of larger size: forewing comparatively more pointed at the apex: hindwing also broader, and with a more angular apex. Upperside of a paler olivaceous-brown, the dusky markings less distinct on both wings, the apical and discal spots smaller. Female upperside also paler than in T. ravi, the apical spots on forewing somewhat smaller, the cell spots similar, the two discal spots somewhat larger.

Underside: forewing with the spots as above: hindwing more intensely whitish grey, the discal black spots much smaller and less defined.

Expanse δ 2, Q $2\frac{1}{10}$ inches.

HAB. Khasia Hills; Shillong; Assam. In coll. Indian Museum, Calcutta, and F. Moore.

LOBOCLA, n. g.

Male. Forewing triangular, the edge of the costal margin slightly folded over on to the upperside from near the base to end of the costal vein: * the costal vein extending to three-fifths the margin; subcostal five-branched, first branch emitted at one-third before end of cell, second and third at equal distances from the first, fourth and fifth from end of the cell: discocellular bent outward near upper end and inwardly oblique hindward; upper radial from the angle near subcostal, lower radial from the middle; cell long, extending beyond two-thirds the wing; three medians, lower at three-fourths and middle median at about onefourth before end of the cell; submedian straight: hindwing short, broad, apex rounded, exterior margin slightly produced and angular at end of submedian vein; costal vein extending to the apex; subcostal touching the costal close to the base, two-branched, first branch at onefourth before end of the cell; discocellular very slender, almost erect; the radial from its middle; cell broad, extending to half the wing; two upper medians from end of the cell, lower at about one-third before the end; submedian and internal vein nearly straight. Body short, stout, thorax hairy; palpi broad, thickly clothed, apical joint short, thick; antennæ with a long slender-pointed tip; femora and tibiæ short, stout, slightly pilose, middle tibiæ with two and hind with four spurs, tarsi long.

Type, L. liliana.

^{*} The species of Erynnis ((E. alcew, etc.) have a similar fold on the costal margin of the forewing.

LOBOCLA LILIANA.

Plesioneura liliana, Atkinson, P. Z. S. 1871, p. 216, pl. xxii, fig. 2.

HAB. Yunan.

LOBOCLA CASYAPA, n. sp.

Differs from L. liliana in its smaller size. Upperside somewhat paler and of an olive-brown tint, sparsely speckled with olive-grey scales: forewing with the transverse semidiaphanous yellow band one-third less in width, the portions being distinctly defined by the traversing brown veins, the subapical spots also much smaller. Underside much paler: forewing numerously speckled with greyish-ochreous scales at the apex, the band and apical spots as above: hindwing with similarly disposed markings, but all composed of more numerous greyish-ochreous scales, these scales being whitish in L. liliana.

Expanse $1\frac{9}{10}$ inch.

 \mathbf{H}_{AB} . Masuri (Lang). Cashmere (Reed). In coll. Indian Museum, Calcutta, and F. Moore.